Biochemistry (Moscow) Supplement Series B: Biomedical Chemistry 2010 vol.4 N2, pages 171-176

Phosphorylation of ATM/ATR substrates in eukaryotic cells after infection with Helicobacter pylori

Anikeenok M., Churin Y., Meyer T., Ilinskaya O.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

Phosphorylation of ATM-kinase substrates in HeLa and AGS cells in response to Helicobacter pylori infection has been characterized. Infection with wild-type (cagPAI-positive) and corresponding isogenic cagPAI negative mutant induced activation of Chk1 and Chk2 kinases. However, only Chk1 was directly activated by ATM-kinase. Using 2D-electrophoresis and mass spectrometry a group of proteins phosphorylated in AGS cells by ATM1/ATR kinases during H. pylori infection has been identified. © 2010 Pleiades Publishing, Ltd.

http://dx.doi.org/10.1134/S1990750810020071

Keywords

ATM/ATR kinases, Helicobacter pylori, phosphorylation, RPA32A, splicing-factor